

IN THE CLAIMS:

The text of all pending claims, (including withdrawn claims) is set forth below. Cancelled and not entered claims are indicated with claim number and status only. The claims as listed below show added text with underlining and deleted text with ~~striketrough~~. The status of each claim is indicated with one of (original), (currently amended), (cancelled), (withdrawn), (new), (previously presented), or (not entered).

Please AMEND claims 1, 3, 7-9 and 12 in accordance with the following:

1. (CURRENTLY AMENDED) A RAID controller, which accesses an access request area on logical volumes distributed and stored on a plurality of physical disks according to a disk access request from a host device, comprising:

a plurality of physical disk groups storing different logical volumes, wherein one logical volume is distributed to a plurality of physical disks to form a plurality of redundant groups;

a plurality of management modules managing said plurality of redundant groups-included on said plurality of physical disks, and issuing a logical format processing request for logical formatting of each said disk access request area of each of said logical volume distributed to said plurality of physical disks forming said redundant groups, by referring to one of a plurality of management tables for managing progress information of said logical format of each of said logical volume distributed to said plurality of physical disks forming said redundant groups; and

a plurality of lower layer modules for accessing one of said ~~one of~~ plurality of physical disks according to the processing of said logical format processing request of said plurality of management modules,

wherein each said management module comprising:

one of said plurality of said management tables managing said plurality of redundant groups; and

a queue queuing said disk access request, and

wherein each of said plurality of management ~~module~~ modules, according to said disk access request, judges whether each of said access request area has been logically formatted referring to one of said plurality of management tables, and when judged as formatted, requests each of said disk access ~~request~~ requests to said plurality of lower layer modules, and when not formatted, issues a logical format processing request and queues said disk access request in said queue, and

wherein when no disk access request exists in said queue, searches an unformatted area from one of said plurality of management tables, and issues a logical format processing

request to said plurality of lower layer modules.

2. (PREVIOUSLY PRESENTED) The RAID controller according to claim 1, wherein, when one of said plurality of management modules has an abnormality, another one of said plurality of management modules executes said logical format processing for each said disk access request area of each of said logical volume, distributed to said plurality of physical disks forming said redundant groups managed by one of said plurality of management modules.

3. (CURRENTLY AMENDED) The RAID controller according to claim 1, further comprising a RAID management module for restoring said management table of one of said plurality of physical disk groups which one of said plurality of management modules manages in a management module of said plurality of management modules other than said ~~logical format~~ management module issuing said logical format processing request using a management table of another of said plurality of management modules when the one of said plurality of management modules has an abnormality.

4. (PREVIOUSLY PRESENTED) The RAID controller according to claim 3, wherein said RAID management module executes said restoration referring to a configuration table where a RAID configuration is stored.

5. (PREVIOUSLY PRESENTED) The RAID controller according to claim 1, wherein one of said plurality of management tables manages the progress status of said logical volume in logical format processing units by bit maps.

6. (PREVIOUSLY PRESENTED) The RAID controller according to claim 5, wherein one of said plurality of management modules, updates said one of plurality of management tables for managing said progress information at the completion of said logical format processing request, searches said queue at the completion said logical format processing request, and issues said disk access request, for which said logical format processing request has completed.

7. (CURRENTLY AMENDED) A RAID control method for accessing an access request area of a plurality of physical disk groups including different logical volumes, where one logical volume of said different logical volumes is distributed to a plurality of physical disks to

form redundant groups, according to a disk access request from a host device, comprising:

issuing a logical format processing request for the logical format of each area of said one logical volume referring to a management table for managing the progress information of the logical format processing of said one logical volume;

judging whether all of said access request areas have been logically formatted by referring to said management table according to said disk access request;

requesting said disk access request to a lower layer module which accesses said physical disk when judged as formatted;

issuing said logical format processing request and queuing said disk access request to a queue when not formatted; and

updating said management table having redundancy according to a completion notice of the processing of said logical format from said lower layer module.

8. (CURRENTLY AMENDED) The RAID control method according to claim 7, further comprising executing a said logical ~~formatting~~format of said physical disks, wherein ~~one~~a first logical format management module manages ~~another~~a second logical format management module when said ~~one~~first logical format management module has an abnormality.

9. (CURRENTLY AMENDED) The RAID control method according to claim 7, further comprising restoring the management table ~~of said physical disks~~ of said one logical volume, wherein ~~one~~a first logical format management module includes the management table, and said first logical format management module manages another a second logical format management module using said management table of ~~another~~said first logical format management module when said ~~one~~second logical format management module has an abnormality.

10. (PREVIOUSLY PRESENTED) The RAID control method according to claim 9, wherein said restoring comprises executing said restoring by referring to a configuration table where a RAID configuration is described.

11. (PREVIOUSLY PRESENTED) The RAID control method according to claim 7, wherein said management table manages the progress status of said logical volume in logical format processing units by bit maps.

12. (CURRENTLY AMENDED) The RAID control method according to claim 7, further comprising:

searching said queue at the completion of execution of said logical format processing request; and

issuing said disk access request for which said logical format corresponding to said logical format processing request has completed to said lower layer module.